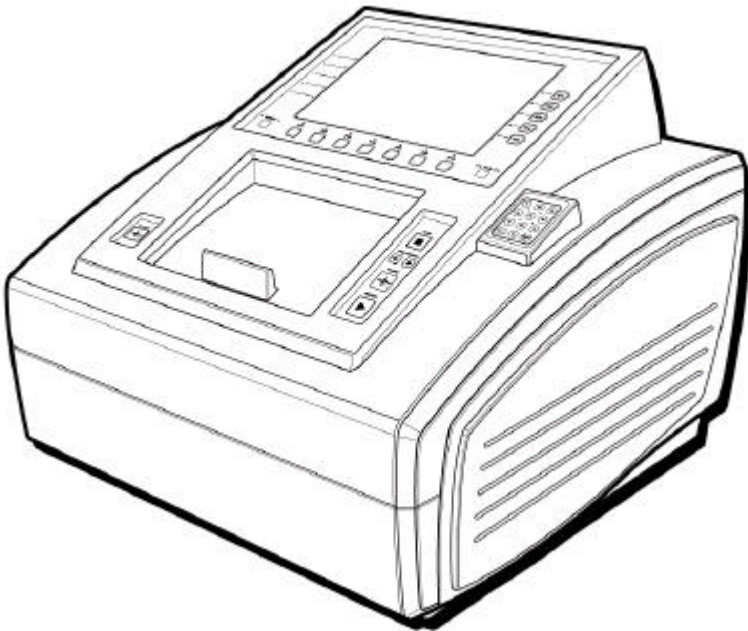


Operator's Manual

Excelon



IMPORTANT NOTICE

This product may malfunction due to electromagnetic waves caused by portable personal telephones, transceivers, radio-controlled toys, etc. Be sure to avoid having the above objects, which affect the normal operation of the product, brought near the product.

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Contents

IMPORTANT NOTICE	2
1. Introduction.....	7
1.1 System Configuration.....	7
1.2 Main Features	7
1.3 Classification	8
2. Safety Information	9
2.1 Introduction	9
2.2 Safety Symbols	10
2.3 Environment factors	11
2.4 Safety Precaution	12
3. System Configurations	19
3.1 Edger	19
3.2 Frame Reader	22
3.3 Blocker.....	23
3.4 Standard Accessory (Tool Box)	24
4. Installation Procedure.....	25
4.1 Edger	25
4.2 Frame Reader	26
4.3 Blocker.....	27

5. Operation	28
5.1 Frame Reader	28
5.2 Blocker	32
5.3 Edger	38
5.4 Edging Process	42
5.4.1 Preview MODE	42
5.4.2 Frame Change	44
5.4.3 Layout Mode	46
5.4.4 Edging Mode	52
5.4.5 Retouch Mode	58
5.4.6 One Stop Edging Mode	60
6. User Defined Options	63
6.1 Configuration of Frame Reader	63
6.2 Configuration of Edger	64
6.3 Adjusting Edger	66
6.3.1 Size Adjustment	67
6.3.2 frame Adjustment	68
6.3.3 Axis Adjustment	70
6.3.4 Bevel Adjustment	72
6.3.5 Groove Adjustment	74
6.3.6 Safety Beveling Adjustment	76
6.4 Layout Default	79
6.5 Edging Default	81
7. System Maintenance	83
7.1 Automatic Calibration of Frame Reader	83
7.2 Automatic Calibration of Edger	86

7.3 Wheel Dressing	88
7.4 Edging Room Cleaning	90
7.5 Water Tank Draining	91
7.6 Wheel Replacement	92
7.7 Frame Data Base Clear	93
7.8 Parking Mode	93
7.9 Maintenance Tips	93
<i>Standard Accessory</i>	96
<i>Specification</i>	97
<i>Drawings of System</i>	98

1. Introduction

1.1 System Configuration

- Edger (CPE-4000)
- Frame Reader (CFR-4000)
- Blocker (CBK-4000)

1.2 Main Features

- All the finishing processes, tracing to edging, are fully operated with the advanced 3D Digital Technology optimizing the productivity and efficiency

Edging Material	Beveling	Flat Edging	Grooving	Polishing	Safety Beveling
Plastic	?	?	?	?	?
Glass	?	?	X	X	?
High Index	?	?	?	?	?
Polycarbonate	?	?	?	?	?
Trivex®	?	?	?	?	?

- High Resolution TFT-LCD (10.4") Color Screen and the Intuitive Icon-based User Interface are harmonized to offer the maximum convenience for everyday use
- The "Digital Pattern Layout" modifies the lens shape in left/right, top/bottom as well as circumference and optimizes the fitting challenge for Rimless and Semi-Rimless
- Frame Tracing, Layout and Lens Edging can be processed simultaneously. Up to 15 Frame Tracing and Layout work can be stored in advance during the lens edging process
- "One Stop Edging Mode" with the main options is available for faster and easier lens finishing process

- Graphically Designed Test Mode enables the operator to effectively perform the routine maintenance without the technical assistance
- Any shape and materials of frames from rimless to goggles are automatically and precisely scanned with 3D technology ensuring no margin of error
- More than several hundreds of frames are memorized in the permanent memory. Therefore, users can retrieve them whenever they want.
- The complete harmony between the robust hardware and the machining algorithm makes the whole machining processes much more stable and fast.

1.3 Classification

- Protection against electric shock: Class I(earthed)
- Installation Category: II
- Pollution Degree: 2

2. Safety Information

2.1 Introduction

Safety is everyone's responsibility. The safe use of this equipment is largely dependent upon the installer, user, operator, and maintainer. It is imperative that personnel study and become familiar with this entire manual before attempting to install, use, clean, service or adjust this equipment and any associated accessories. It is paramount that the instructions contained in this manual are fully understood and followed to enhance safety to the patient and the user/operator. It is for this reason that the following safety notices have been placed appropriately within the text of this manual to highlight safety related information or information requiring special emphasis. All user, operators, and maintainers must be familiar with and pay particular attention to all warning and cautions incorporated herein.



WARNING

"Warning" indicates the presence of a hazard that could result in severe personal injury, death or substantial property damage if ignored.



NOTE

"Note" describes information for the installation, operation, or maintenance of which is important but hazard related if ignored.



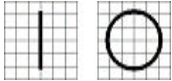



CAUTION

"Caution" indicates the presence of a hazard that could result in minor injury, or property damaged if ignored.

2.2 Safety Symbols

The International Electro technical Commission (IEC) has established a set of symbols for medical electronic equipment, which classify a connection or warn of any potential hazard. The classifications and symbols are shown below.









Save these instructions





	<p>I and O on power switch represent ON and OFF respectively.</p>
	<p>This symbol identifies a safety note. Ensure you understand the function of this control before using it. Control function is described in the appropriate User's or Service Manual.</p>
	<p>Identifies the point where the system safety ground is fastened to the chassis. Protective earth connected to conductive parts of Class I equipment for safety purposes.</p>
	<p><u>Disposal of your old appliance</u></p> <ol style="list-style-type: none"> 1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC. 2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities. 3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health. 4. For more detailed information about disposal of your old appliance, please contact your city office, waste

	disposal service or the shop where you purchased the product.
--	---------------------------------------------------------------

2.3 Environment factors

Avoid the following environments for operation or storage:

	Where the equipment is exposed to water vapor. Don't operate the equipment with a wet hand.
	Where the temperature changes extremely. - Operation Temperature: 10 ~ 40°C (Humidity : 50 ~ 80%) - Storage Temperature : -20 ~ 85°C (Humidity : 50 ~ 80%)
	Where the humidity is extremely high or there is a ventilation problem.
	Where equipment is exposed to chemical material or explosive gas.
	Where the equipment is exposed to direct sunlight.
	Where it is near the heat equipment.
	Don't disassemble the product or open. We aren't responsible for it for nothing.
	Don't plug the AC power cord into the outlet before the connection between devices of the equipment is completed. This can generate the defect.

<p>Error!</p> 	<p>Where the equipment is subject to excessive shocks or vibrations.</p>
	<p>Be careful not to be inserted dust, especially, metal</p>
<p>Error!</p> 	<p>Be careful not to close the fan located on the lateral or backside of the equipment.</p>
	<p>Pull out the power cord with holding the plug, not the cord.</p>

Avoid places where the ambient temperature falls below 10? or exceeds 40? for normal operation, or below -20? or exceeds 85? for transportation and storage. Humidity should be maintained between 50% and 80% for normal operation, transportation and storage. Avoid environments where the equipment is exposed to excessive shocks or vibrations. And also the normal operation time is as following:

operation time : short term operation max 6min

2.4 Safety Precaution

This equipment has been developed and tested according to safety standards as well as national and international standards. This guarantees a very high degree of safety for this device. The legislator expects us inform the user expressively about the safety aspects in dealing with the device. The correct handling of this equipment is imperative for its safe operation. Therefore, please read carefully all instructions before switching on this device. For more detailed information, please contact our

Customer Service Department or one of our authorized representatives.

- ? This equipment must not be used (a) in an area that is in danger of explosions and (b) in the presence of flammable, explosive, or volatile solvent such as alcohol, benzene or similar chemicals.
- ? Do not put or use this device in humid rooms. Humidity should be maintained between 50% and 80% for normal operation. Do not expose the device to water splashes, dripping water, or sprayed water. Do not place containers containing fluids, liquids, or gases on top of any electrical equipment or devices.
- ? The equipment must be operated only by, or under direct supervision of a properly trained and qualified person.
- ? The service technician of Huvitz or the technician authorized by Huvitz may only carry out modifications of this equipment.
- ? Customer maintenance of this equipment may only be performed as stated in the User's Manual and Service Manual. Any additional maintenance may only be performed by the service technician of Huvitz or the technician authorized by Huvitz.
- ? The manufacturer is only responsible for effects on safety, reliability, and performance of this equipment when the following requirements are fulfilled: (1) The electrical installation in the respective room corresponds to the specifications stated in this manual and (2) This equipment is used, operated, and maintained according to this manual and Service Manual.
- ? The manufacturer is not liable for damage caused by unauthorized tampering with the device(s). Such tampering will forfeit any right to claim under warranty.
- ? This equipment may only be used together with accessories supplied by Huvitz.

If the customer makes use of other accessories, use them only if their safe usability under technical aspect has been proved and confirmed by Huvitz or the manufacturer of the accessory.

- ? Only person who has undergone proper training and instructions are authorized to install, use, operate, and maintain this equipment.
 - ? Keep the User's Manual and Service Manual in a place easily accessible at all times for persons operating and maintaining the equipment.
 - ? Do not force cable connections. If a cable does not connect easily, be sure that the connector (plug) is appropriate for the receptacle (socket). If you cause any damage to a cable connector(s) or receptacle(s), let the damage(s) be repaired by an authorized service technician.
 - ? Please do not pull on any cable. Always hold on to the plug when disconnecting cables.
 - ? Before every operation, visually check the equipment for exterior mechanical damage(s) and for proper function.
 - ? Do not cover any ventilation grids or slits. Immediately turn off and unplug any equipment that gives off smoke, sparks, strange noises, or odors.
 - ⚠ Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
 - ⚠ Edger produces a noise. To prevention of the noise damage, You use the earplug
- 🔗 [Keep to use LAN Port only in the inside building.](#)

⚠ This machine might be impaired if used in a manner not specified by manufacturer and this manual.

**WARNING**

- Be sure that any part of human body is not interfered with the edging wheel during the operation. Otherwise, the person may be seriously hurt.
- Edging room cover should be fully closed during the lens finishing process. If the lens is broken during the process, the broken pieces of lens may cause the damage to the person. The debris may also cause the damage to the human eye.
- Be sure not to press the clamp button unless the wheel completely stops. Otherwise, the lens may be fallen and broken by the wheel, and cause the damage to the person.
- If the crack appears on the edging wheel or on the base of the product, immediately stop the operation and ask for the service. If the edging wheel is broken during the operation, the broken pieces may cause the serious hurt.
- Be sure not to edge the materials other than the spectacle lenses. Otherwise, it may deteriorate the wheel performance and cause the crack on it. If the edging wheel is broken during the operation, the broken pieces may cause the serious hurt.
- Be sure not to operate the product unless the front cover of edging body is fully closed. Otherwise, it may cause the serious hurt.
- The equipment should be properly installed and operated based on the instructions on this manual. If the power is turned on without unlocking the locking device for the carriage and feeler, it may cause the damage to the product and cause the malfunction of the product.

**WARNING**

- Do not disassemble the product without the proper training. It may cause the electric shock, serious hurt during the operation or cause the malfunction of the product.
- Be sure the material of lens is matched with the job options selected in the display before starting the edging mode. Otherwise, it may cause the damage to the wheel and shorten the lifetime of wheel.
- The safety beveling for glass lenses should be performed both at front and rear side. Otherwise, it will cause the damage to the human skin.
- The product should be properly installed and maintained at the horizontally leveled place. Otherwise, it may affect the normal operation of the product.
- Do not force on the stylus of frame reader. It may cause the malfunction of the product.
- Be sure that the stylus of frame reader is not interfered with the human body or other objects during the operation. Otherwise, it may cause the hurt or malfunction of the product.
- Be sure that the fingers are not caught during clamping.
- In case of detaching the lens adapter from the finished lens, use the Adapter Remover supplied as the standard accessory. Do not pull out the lens adapter with bare hands.

- Be sure that the water supply hose is not folded or interfered with other objects causing the problem of water supply. It may deteriorate the quality of lens finishing. The debris of lens may cause the damage to the respiratory organ of operator and malfunction of the product.

**CAUTION**

- When moving the equipment, first fix the stage and check whether the power supply is off. Then, two persons should lift the bottom of the product with both hands.
- In case of setting down the equipment, make sure not to be interfered with the obstacles. Setting down the product slowly in order to prevent the hurt of human body or damage to the product.
- When moving the equipment, make sure the locking device and the screw for the cover are properly tightened.
- In case of packaging the equipment, use the recommended packaging material and method in order to prevent the damage during the transportation.

**CAUTION**

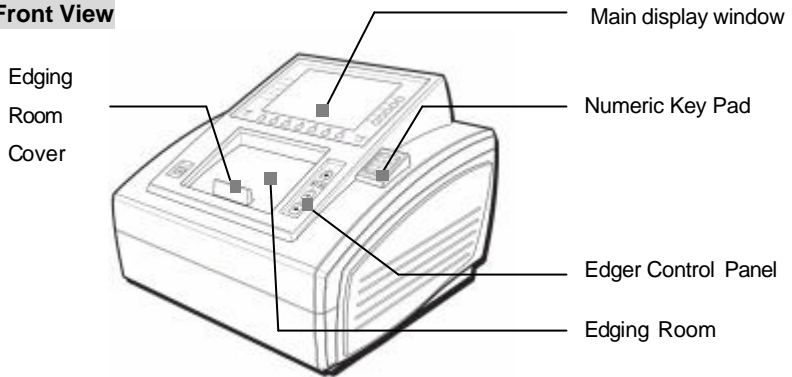
- Be sure to use the standard accessories or tools provided together with the product for the maintenance. Otherwise, it may cause the malfunction of the product.
- In case of wheel dressing, be sure to use the dressing stick fitted with each wheel. The dressing stick should be replaced in case the length becomes

smaller than the size, which can be hold by hand.

3. System Configurations

3.1 Edger

Front View

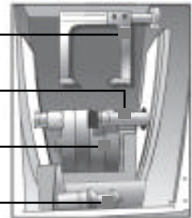


Lens Feeler

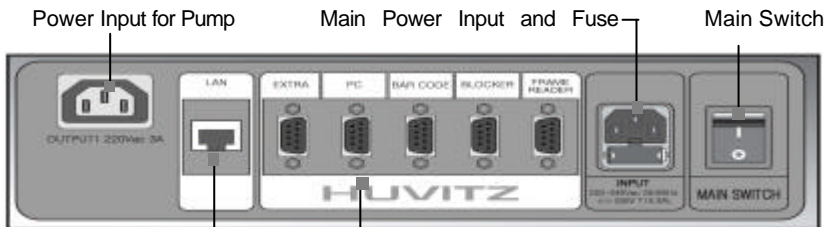
Clamp

Main Wheel

Wheel for Safety Beveling and Grooving



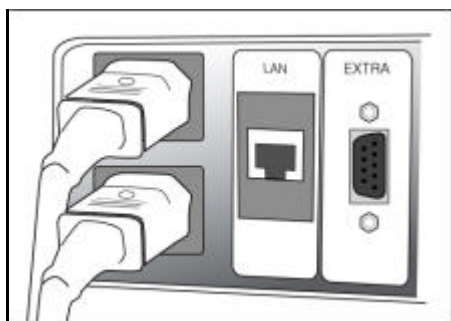
Rear View

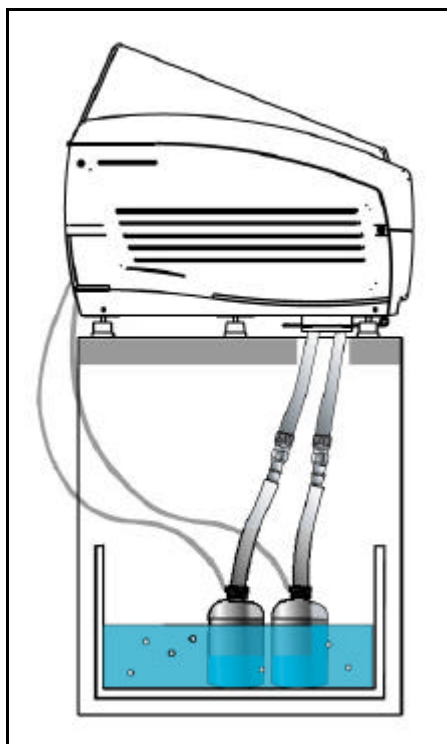


Ethernet Interface Terminal
(not available yet)

Interface Terminal

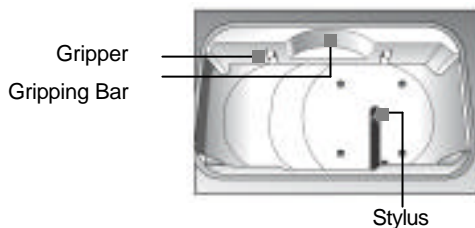
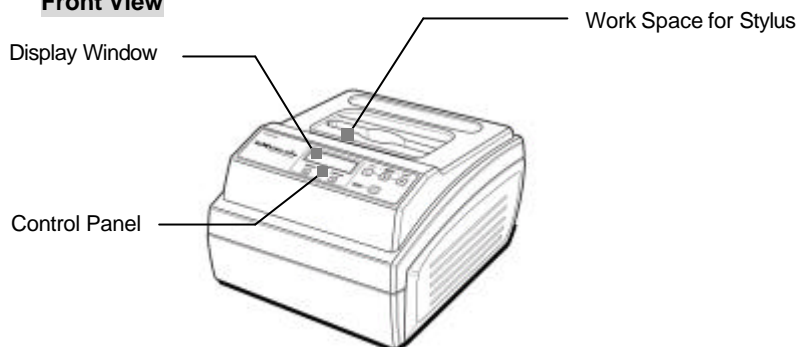
- FRAME READER
- BLOCKER
- Bar Code
- PC : For computer
- EXTRA : For console terminal

For Edging Polycarbonate

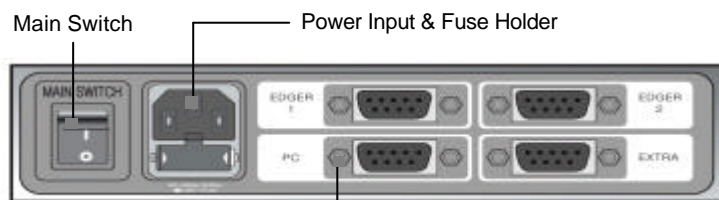


3.2 Frame Reader

Front View



Rear View

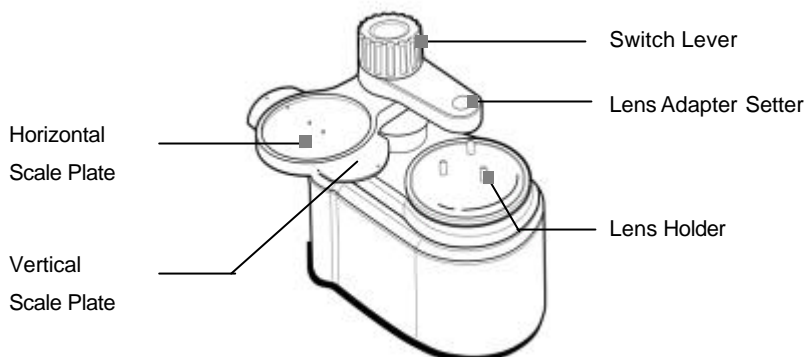


Interface Terminal

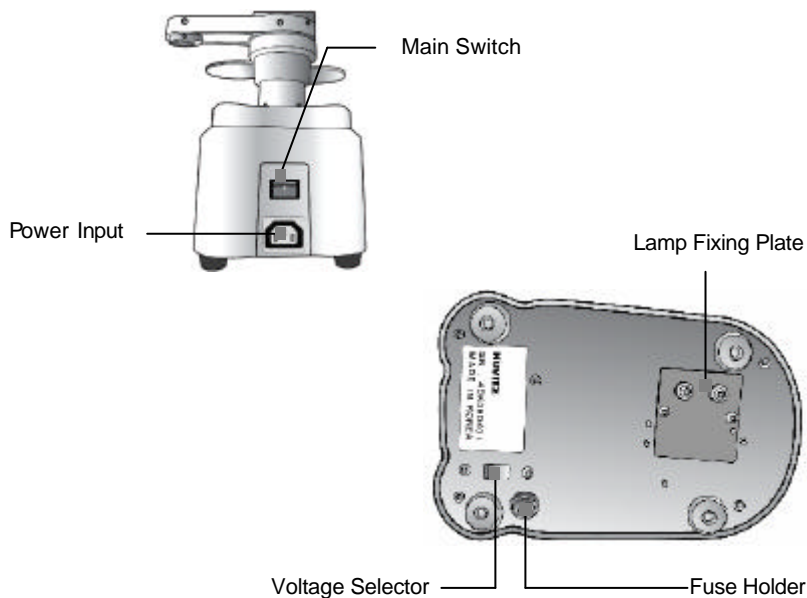
- EDGER1
- EDGER2
- PC
- EXTRA : For console terminal

3.3 Blocker

Front View



Rear View



3.4 Standard Accessory (Tool Box)



Lens Adaptor



Lens Adaptor Holder



LEAP-? Tape



Clamp Adaptor



Lens Adaptor Remover



Blocker Lamp(6V, 8W)



Standard Frame



Standard Pattern



Pattern Holder



Standard JIG for Edger



Fuse(250V,10A)



Wrench Set



Carriage-Fixing Bracket



Feeler Tips



Feeler Assembly-Fixing
Bracket



Dressing Sticks



NOTE

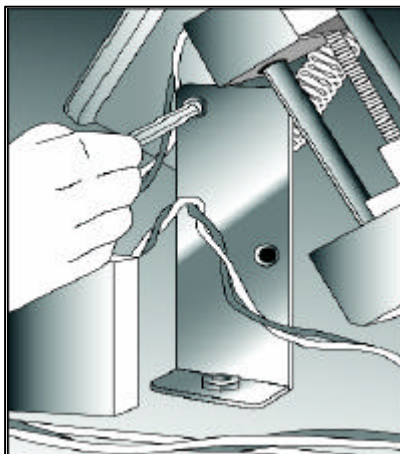
- Only Use 3M LEAP-III™ as the Block Tape in order to assure the proper axis positioning.
- In case of Super Hydrophobic Lens, use the specialized sticker in order to assure the proper axis position.

4. Installation Procedure

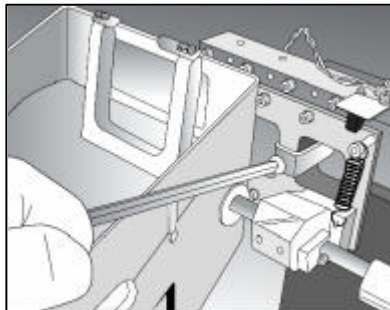
4.1 Edger

- ? Remove the shock-absorbing material from the packing box and pull out the Edger carefully.
- ? Unfasten the screw at the Edger Front Cover and lift it open.
- ? Remove the Edger Left Cover.
- ? Remove the Carriage Fixing Bracket.
- ? Remove the Feeler Fixing Bracket.
- ? Plug the Pump Power Cable into the receptacle for Pump at the back of the product.
- ? Connect Water Supply Hose into the Pump.
- ? Connect Water Drain Hose into Water Drain Hole and tie it with the fixing clip.
- ? Assemble the Edger Left Cover and Edger Front Cover.
- ? Check the Initialization.

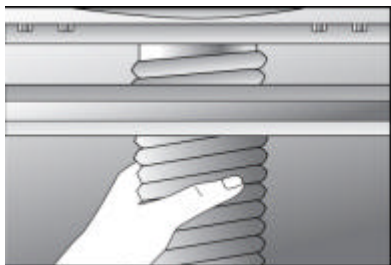
❗ Store the Carriage Fixing Bracket and Feeler Fixing Bracket into the toolbox for the use of moving the product.



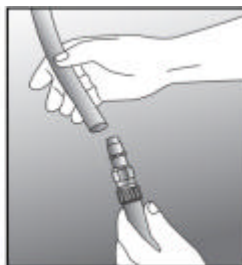
[Removing the Carriage Fixing Bracket]



[Removing the Feeler Fixing Bracket]



[Connecting the Water Drain Hose]



[Connecting the Water Supply Hose]



Fixing Clip for Water Drain Hose

**NOTE**

- Fill up 2/3 of the tank with water and make sure that the water supply hose is not dragged below the pump, and is not folded or interfered with other objects.
- Use the Clip to tie the Water Supply Hose properly.

4.2 Frame Reader

- ? Remove the shock-absorbing material from the packing box and pull out the Frame Reader carefully.
- ? Remove the shock-absorbing material from the workspace of Stylus.
- ? Plug the Power Cable into the receptacle at the back of the product and turn on the power to check the initial operation.
- ? If the initial operation works properly, connect Edger and Frame Reader by using 9-pin D-sub Crossed Interface Cable.

4.3 Blocker

- ? Remove the shock-absorbing material from the packing box and pull out the Manual Blocker carefully.
- ? Insert the Vertical Scale Plate underneath of the Horizontal Scale Plate and fix the screw at the end of both sides. (Insert the printed-side to face the top)
- ? Plug the Power Cable into the receptacle at the back of the product and turn on the power to check the lamp is ON.



CAUTION

- Be sure to check the voltage selector underneath of the product before the power switch is ON.

5. Operation

5.1 Frame Reader

Control Panel



Menu

Menu Selection

- CONFIGURATION
- AUTOMATIC CALIBRATION

? Refer to the section 6.1 Configuration of Frame Reader for CONFIGURATION.

? Refer to the section 7.1 Automatic Calibration of Frame Reader for AUTOMATIC CALIBRATION.

Frame

Material Selection

- METAL
- PLASTIC
- OPTYL

? Before the frame is traced, choose one of the above items.

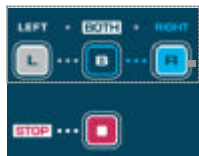
? The specified values are used in Edger for the size adjustment.

Pattern Tracing

- LO CURV (2D Tracing)
- HI CURV (3D Tracing)

? If the pattern or the demo lens are placed in the tracer, the Frame Menu is automatically changed to this curve mode instead of material selection.

? In HI CURV mode, the tilt correction is applied. Therefore, if the pattern or demo lens have a severe curved shape, make sure to apply it to the HI CURV mode.



LEFT / BOTH / RIGHT

STOP

LEFT / BOTH / RIGHT

- BOTH : for two eye tracing. This is only for frame tracing.
- R : for right eye tracing.
- L : for left eye tracing.

? Usually one side tracing is used for the pattern or demo lens.

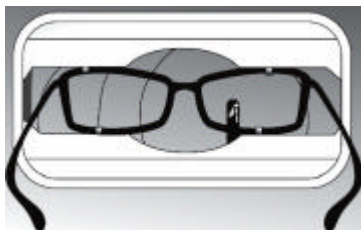
? The one side traced data for pattern or demo lens is copied symmetrically to the other side.

Operation Tips

- The data will be automatically transmitted after finishing the tracing.
- In case that the single side (R or L) is traced, the traced data will be automatically duplicated symmetrically to the other side to complete the job.
- Semi-Automatic Tracing Mode will be executed in case of pressing one of these three buttons, 'L', 'B' or 'R' for more than 3 seconds. It will be useful to trace the frame with the lopsided groove.

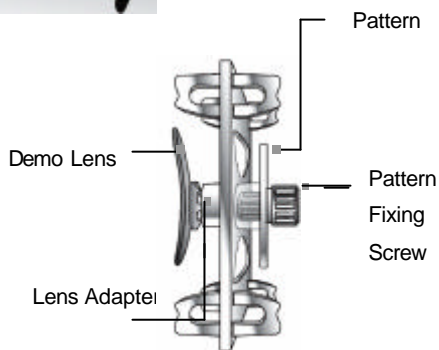
Frame Tracing

- ? Place the frame between the upper grippers and the lower grippers.
- ? Move the frame in order that the bridge of frame is located at the central position between the left and right side grippers.
- ? Press the FRAME button to select the frame material(METAL,PLASTIC,OPTYL).
- ? Press the Reading Button (B, R, L)

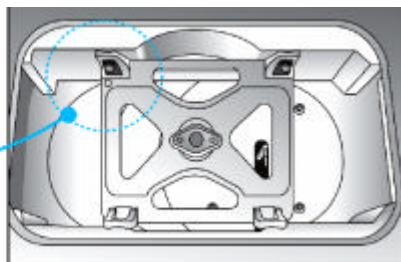


Pattern Tracing

- ? Mark the pattern or demo lens at its optical center using Lensmeter.
- ? Block it at the middle marked spot using Blocker
- ? Place it to the Pattern Holder
- ? Press the FRAME button to select the tracing mode (LO CURV, HI CURV)
- ? Press the Reading Button (R, L)

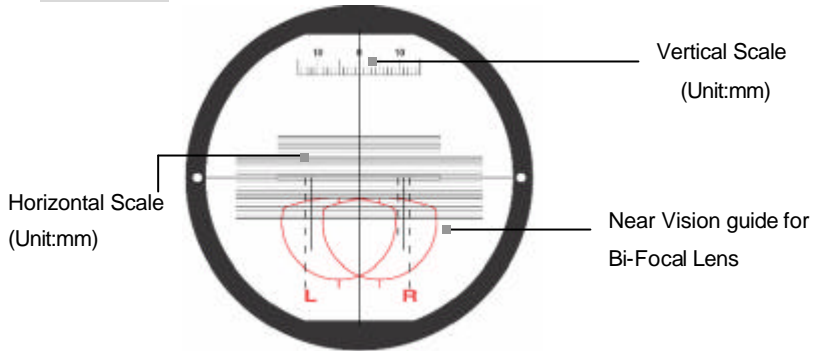


[How to place the Pattern Holder to Gripper]



5.2 Blocker

Scale Plate



Lens Adapter Setter

Lens A dapter should be inserted into the Lens Adapter Setter to the direction of (a) shown at the right picture.

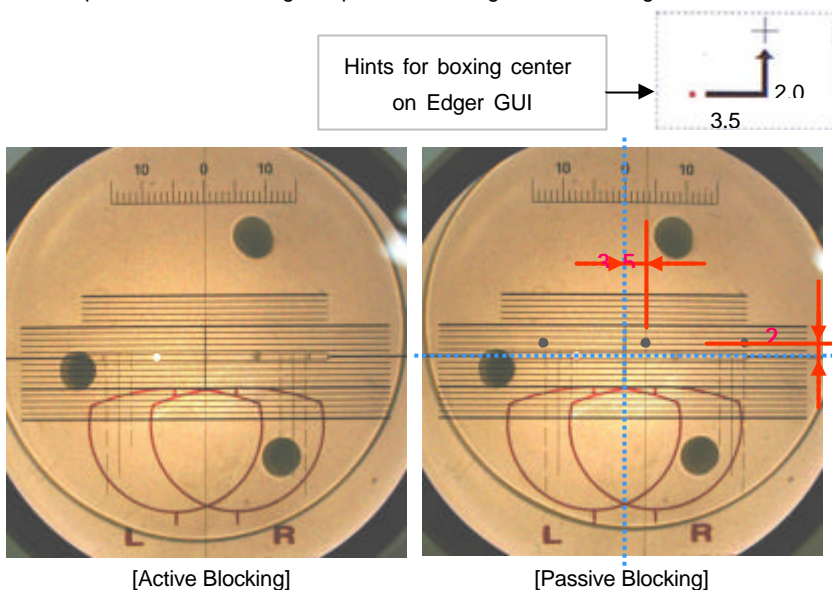


(a)



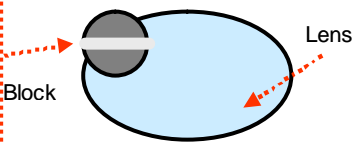
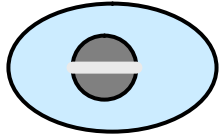
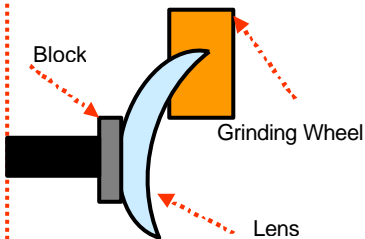
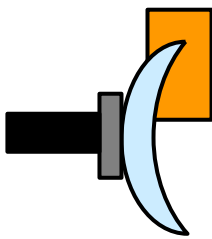
Active Blocking vs Passive Blocking

There are two methods for blocking. Active blocking is to locate the Lens Adapter to the optical center of the lens. On the other hand, Passive blocking is to locate the Lens Adapter to the center of the frame which is called 'Boxing center'. The examples of active blocking and passive blocking are as follows:



When passive blocking is used, the edger shows the distances that the center of lens should be moved. Active blocking is much easier than Passive blocking for blocking. However, active blocking has several limitations, and also it could make the less qualified output in special cases. The following table compares active blocking and passive blocking and summarizes the advantages and disadvantages of them. As it says, if the optical center is far from the frame center, active blocking could make a little bit poor qualified output. So, in this case, passive blocking are recommended.

Comparison with active blocking and passive blocking

	Active Blocking	Passive Blocking
Blocking	Optical Center of Lens	Geometrical Center of Frame
User Convenience	Just following the Marking Spot of Lensmeter	Have to move the Lens according to GUI
Minimum Edging Size	<p>There can be additional limitations because of PD, OH(=Optical Height)</p> 	<p>No additional limitation</p> 
Edging Quality of Beveling or Grooving	<p>Eccentric Edging</p> 	<p>Centric Edging</p> 



NOTE

- Be sure to execute Boxing Center for the followings.
 - ? PD(=Pupil Distance) is in eccentric position
 - ? Horizontally wide frame

? Super hydrophobic lens or ultra hi-index lens

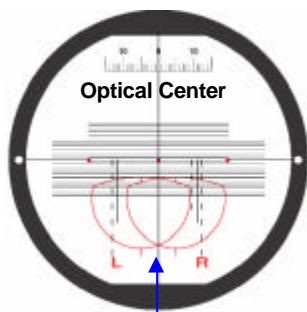
Operation

- ? Plug the Power Cable into the receptacle at the back of the product and turn on the power.
- ? Insert the Lens Adapter into the Lens Adapter Setter (Pay attention on the direction).
- ? Place the marked Lens over the Lens Holder.
- ? According to the Lens Type (Bi-Focal, Progressive) and Blocking Type (Optical Center, Box Center), adjust the marking point using the scale plate.
- ? Turn the Switch Lever to place the Lens Adapter Setter over the Lens and press it to complete the blocking job.

**NOTE**

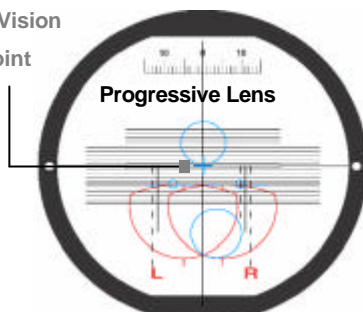
- Push down the switch lever as possible as the scale plate is close to the lens. If then, the operator can minimize the error of the optical illusion.
- Do not force too much on the Switch Lever for blocking. Otherwise, it may scratch or damage the Lens.

Blocking according to the lens types

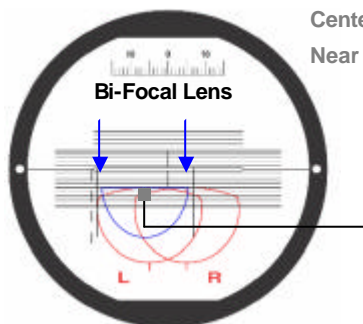


Adjust the marking point of the lens to the center of scale plate

Far Vision
Eye Point

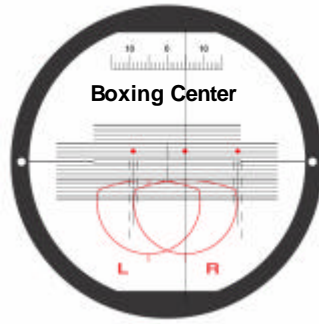


Adjust the Far Vision Eye Point of the progressive lens to the center of scale plate.



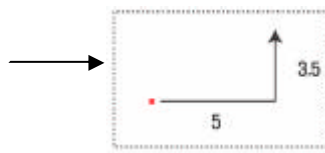
Center Line of
Near Vision

Adjust the Center Line of Near Vision to the point 5? below the center of scale plate. Move the vertical center line 5? to the direction of L/R and adjust the semicircle of near vision to the guide line of Left/Right.



Adjust the marking point of the lens to the direction according to the number guided by the Edger Display.

Guide
of
Edger



5.3 Edger

Display Control Panel

Menu Selection
per Mode



MENU

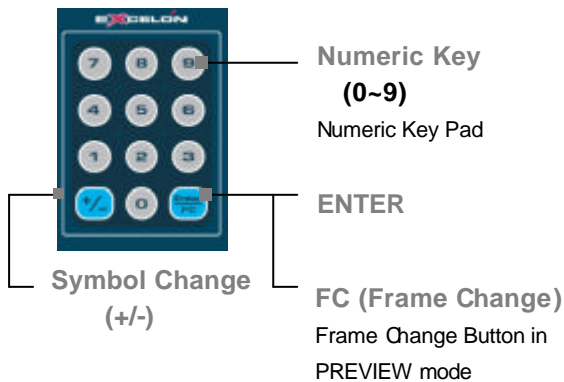
Menu Selection

Option Selection

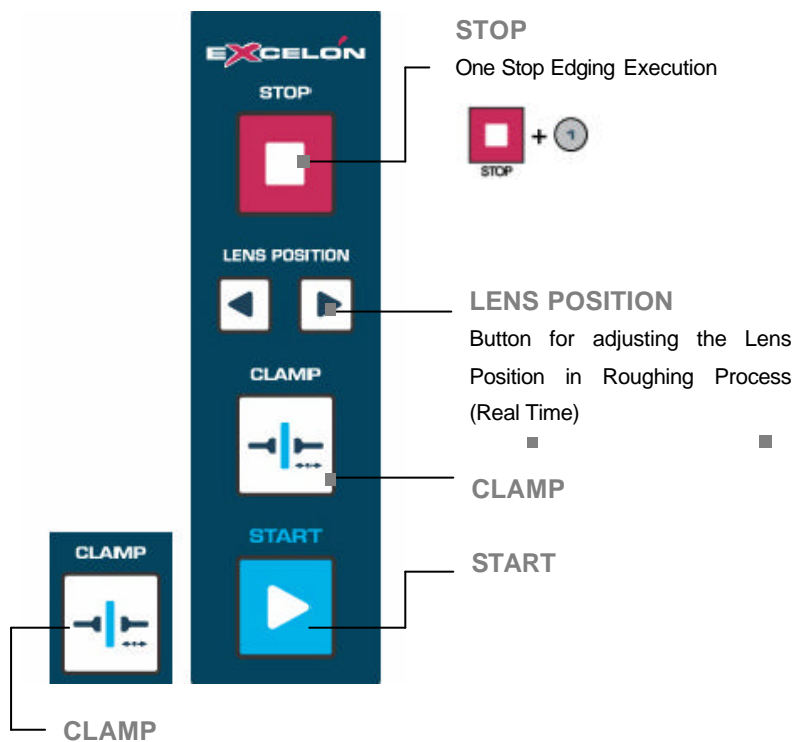
TAB

Mode Selection

Numeric Key Pad



Edger Control Panel

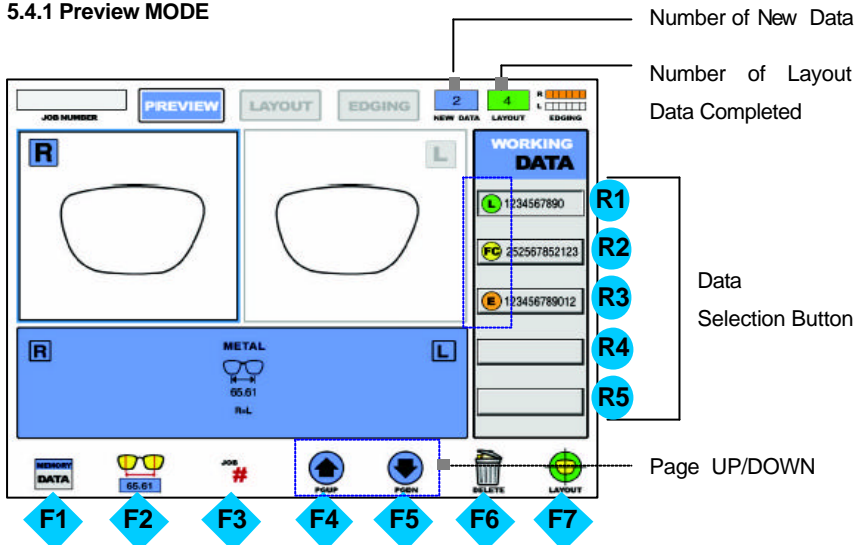


! NOTE

- Be sure that Lens Position Button only works during Roughing process. It is useful to adjust the lens position if the lens exceeds the wheel range because of the thickness.
- Clamp Buttons in the Left and Right provide the exactly same function. They are provided for the convenience to press the button by the bare hand without holding the lens.

5.4 Edging Process

5.4.1 Preview MODE



F1

Recall the Data permanently stored in the inside memory



F2

Return to the WORKING Data display.



F2

Frame pupil distance Input Button (in case the frame data selected)



F2

Bridge Size Input Button (in case the pattern data selected)



F3

Assign the Job Number



F3

Search the internal saved data. Load the internal frame data using the bar code system. The internal frame data can be retrieved by bar code system. Refer to the additional operator manual for it.

F4

Delete the selected data

(In case more than 15 data is accumulated, it will delete the data according to First In First Out basis)

F5

Execute the Layout Mode with the selected data

Icons for data state

L

Completed Layout Data

FC

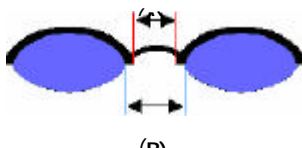
Data designated for Frame Change

E

Data under Edging Process (or Completed)


**NOTE**

- In case of Two Eye Tracing, the value of FPD will be automatically transmitted and displayed.
- In case of pattern tracing, be sure to change the standard value to the actual Bridge Size.
- In case of One Eye tracing, it will be helpful to use Bridge Size Input function in Layout Mode. (It is much easier to measure the Bridge Size)
- Measure the Bridge Size as (B) instead of (A). Remember that the Bridge Size is not from frame to frame, but from lens to lens,



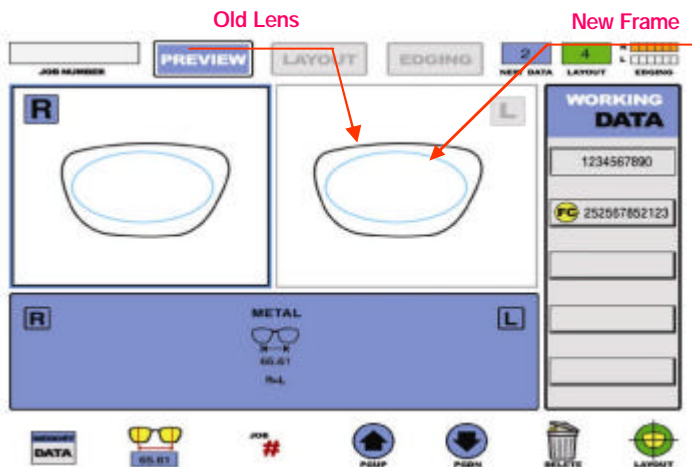
- Blocking Job on the Lens for Frame Change should be executed on Optical Center.

5.4.2 Frame Change

- ? Select the previous lens data from menu(WORKING DATA) using Data Selection Button.
- ? Execute FC button for Frame Change.
- ? Select the new frame data from the Menu(WORKING DATA) using Select Button (The data with Blue Color in PREVIEW MODE)
- ? Execute LAYOUT Button  for Layout and Edging Process
- ? In layout display, if necessary, adjust the PD and the optical height.



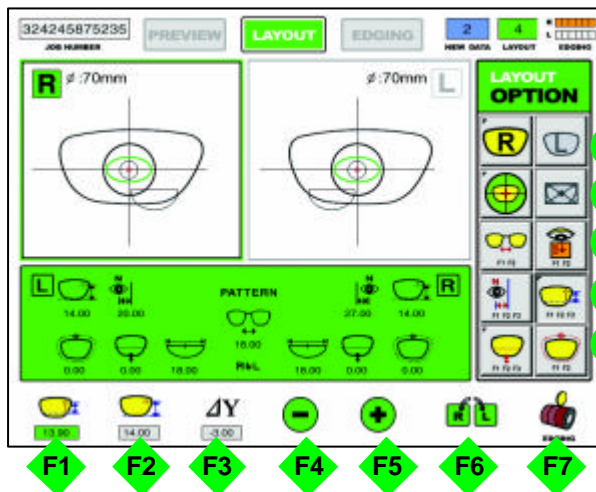
The result display after selecting the old lens and the new frame is as following:



! NOTE

- If the margin for new frame comes to less than 1mm, frame change job would be blocked.
- If you would like to cancel the frame change, select the old lens data again or press the FC button again.

5.4.3 Layout Mode



- R1** Right/Left
- R2** Optical/Boxing Center
- R3** FPD/Bridge Size
- R4** PD
- R5** Digital Pattern

R1

Right / Left

R2

Optical Center Mode

R3

Boxing Center Mode



FPD

Bridge Size



Far Vision

Bi-Focal
(Near Vision)Blend Lens
(Near Vision)**R4**

Binocular



Monocular

4X
FPD-Based PD

Mix OH



Box OH

4Y
FPD-based OH**R5**Near Vision
EnlargementVertical
EnlargementHorizontal
enlargement



diameter
Enlargement



Circumference
Enlargement



Axis Rotation

F6



Execute Right/Left Synchronization

(The data change will be applied for both Right AND left Lens simultaneously)



Cancel Right/Left Synchronization




F7






execute EDGING MODE


(Based on the current Layout Data)

**NOTE**

- Be sure to execute Boxing Center  for the followings.
 - ? PD is in eccentric position
 - ? Horizontally Wide Frame
 - ? Super Hydrophobic Lens or Ultra Hi-Index Lens
- In case of Layout with Monocular PD  , be sure to cancel Right/Left Synchronization. 

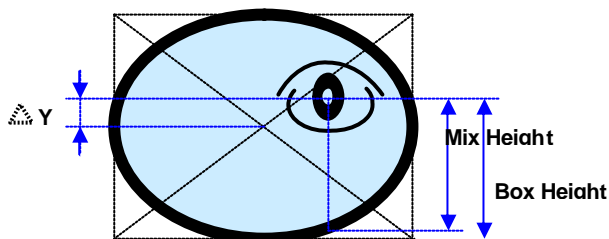
Operation Tips

- If the operator presses the TAB button instead of F7, the next display mode, Edging display will be shown. But, In this case, the Edging display is not based on the current layout data, but based on the previous edging data.
- In case of One Eye Tracing, it is recommended to input the Bridge Size  instead of FPD.
- In case of executing the options for Bi-Focal(Near Vision)  and Bland Lens (Near Vision)  , Near Vision Shape will be displayed on the LCD screen. If you input the diameter, you can see the frame shape similar to the actual lens shape and check the interference.


- If you get the tracing data with tilted axis of Pattern (Demo Lens) or if you want to change the axis of rimless frame, the axis rotation () of Digital Pattern will be very much convenient for the Layout Job.





- The exact meaning of the mix height and the box height is as following:

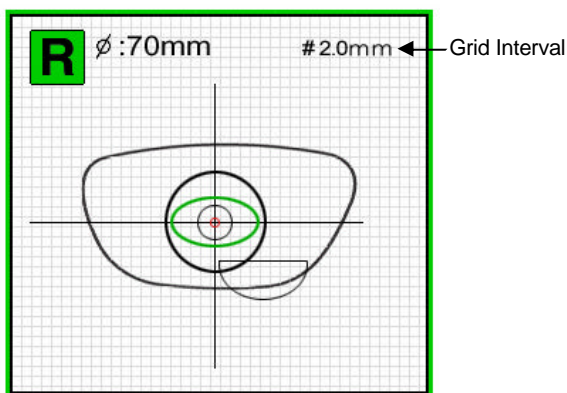


- It is so important to measure the optical height of the patient precisely when edging a progressive lens. Sometimes, too short optical height might cut out the near vision area.
- For the half-framed lens or the rimless lens, the digital pattern provides the convenient reformation. The redesign of the frame shape could be done easily using the digital pattern.
- For the bi-focal lens or the progressive, the digital pattern makes the near vision area included within the frame. Sometimes too small frame shape might cut out the near vision area. In this case, the digital pattern provides the enlargement of the frame shape.

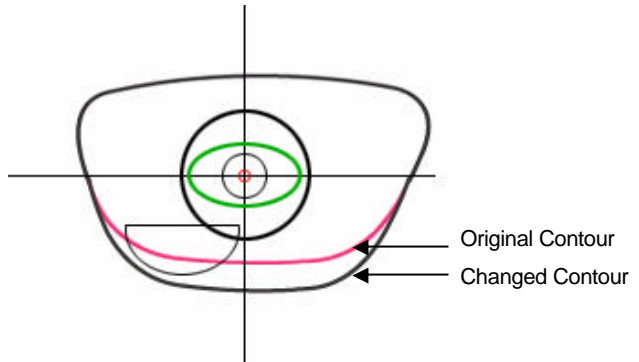
! You can execute the Frame Tracing and the Layout Job during the Lens Edging Process (Up to 15 Jobs). If you press TAB button at the EDGING MODE after carrying out the Layout Job, you can move to PREVIEW MODE. If you execute the Layout Job with the selected data, the previous job will be automatically stored and will be displayed with “” in PREVIEW MODE.

Remember that the layout job saving key is F7  .

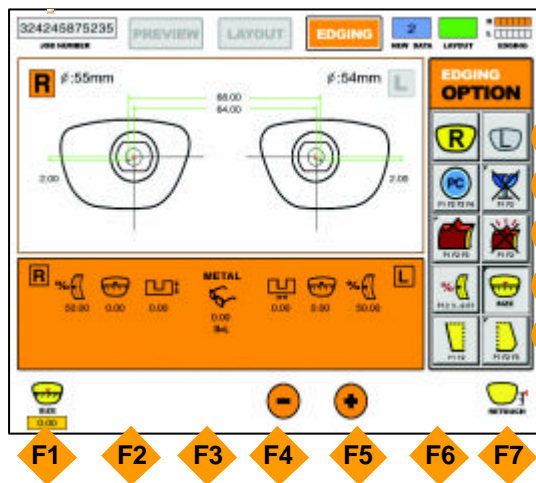
! In the layout mode, if you press the START button, grids will be shown on the screen. Using this grid ruler, you can identify the dimension of each elements such as the size of frame, the distance from the far vision center to the near vision center and the size of near vision area and so on. And also you can change the interval of the grid pressing the R/L lens position buttons .



! In digital pattern editing, if you change one of the changeable elements, the original data will be shown with violet color.



5.4.4 Edging Mode



- R1 Right / Left
- R2 Lens Material/Fragile Lens
- R3 Edging Option / Polishing
- R4 Beveling/Grooving Position
- R5 Size Adjustment(Retouch)
- R5 Safety Beveling

R1



Right/Left

R2



Plastic



Glass



Polycarbonate



Hi-Index



Trivex®



Normal Edging



Fragile



Clamping Pressure

R3



Beveling



Grooving



Flat Edging (Rimless)



Grooving Depth



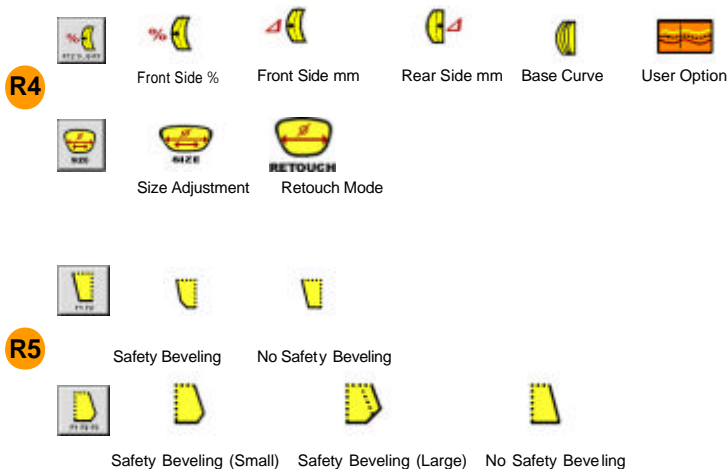
Grooving Width



No Polishing



Polishing



Lens Edging


After selecting the Edging Options, press [START] button to execute the Lens Edging Process. Edging Progress will be displayed on LCD screen for the convenience. Press [STOP] button to cancel the Lens Edging Process.


If you need the size adjustment after finishing the Lens Edging, press button in Size Adjustment. Be sure that Retouch Mode will be only executed after finishing the Lens Edging.


Operation Tips


- In case of Semi-Rimless Edging , the grooving depth and width can be adjusted by changing the default value in "Edging Default" Menu. (Refer to 6.5)

- According to the Edging Options, Beveling and Grooving position can be selected independently.

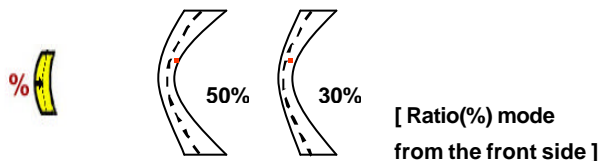
?  Ratio (%) from the Front side of the lens

?  Distance (?) from the Front side of the lens

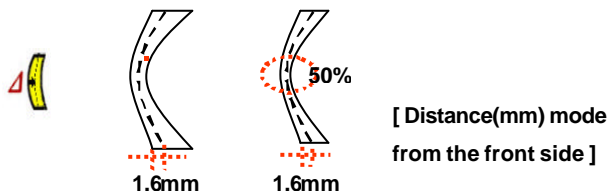
?  Distance (?) from the Rear side of the lens

?  Adjust the position according to the Lens Base Curve and the Minimum Thickness (0~10)

- The value of the edging options affects the final output as followings :




- Like the above picture, if the operator use ratio(%) mode from the Front side about a so thin lens, the machining of the thinnest part could be dangerous.

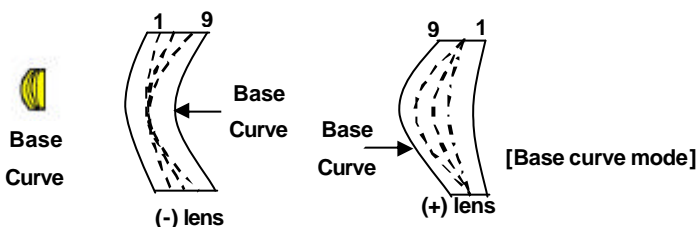



- Using the distance(mm) mode from the front side, the operator can designate the specific distance, However, if the thickness of the thin area is less than the double of the designated value, the machine internally forces it to be machined by the 50% of the thickness at the thin position.

! NOTE

- Frame Material, Lens Material and Lens Thickness may affect the quality of

Lens Fitting. If needed, execute the Size  Adjustment in advance. Frequently used Adjustment Value can be stored at "Frame Fitting" in "size Adjustment". (Refer to section 6.3.1)



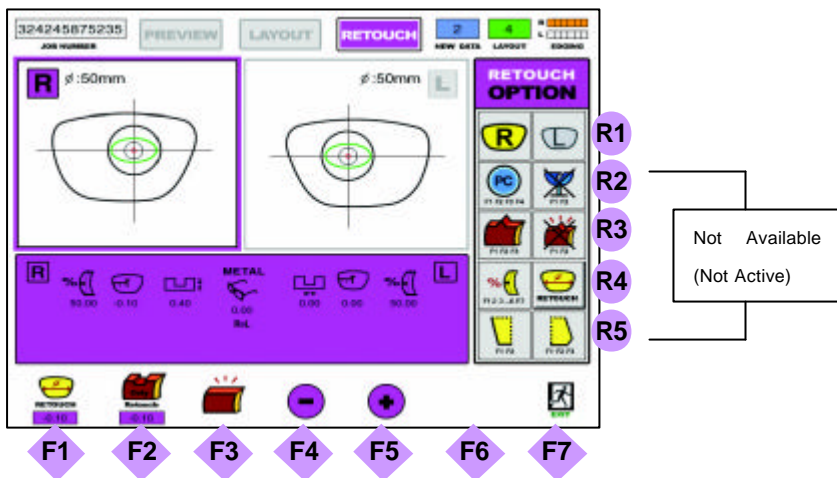
- In the base curve mode, base curves of (+) lenses and (-) lenses exist the opposite side of each of them. In this mode, the bevel or grooving line always passes the mid of the thinnest area which is located at the midst zone of (-) lenses and is located at the edged zone of (+) lens. And much bigger position value makes the curve closer to the base curve.
- Be sure to carry out the Edging Process in Fragile Mode in case the lens may be broken or the axis may be tilted during the edging process. 
- Grooving and Polishing is not available for the Glass Lens. Be sure the material of lens is matched with the job options selected in the display before starting the Edging Mode.

- Be sure to use the new Tape or Sticker and erase the wet from the Lens surface.

**CAUTION**

- The safety beveling for glass lenses should be performed both at front and rear side. Otherwise, it will cause the damage to the human skin.

5.4.5 Retouch Mode



R1



Right/Left

F1



Input the Lens Size to be decreased by Retouch (Unit : mm)

? Input Value : '0' or '-' (Minus Number)

F2



Input the Grooving Depth adjusted by Retouch (Unit : mm)

F3



Activate Polishing (Press one more time to cancel)

F4



Cancel Polishing (Press one more time to activate)

F5



Decreasing the value (Retouch Size of Grooving Depth)

F6



Increasing the value (Retouch Size of Grooving Depth)

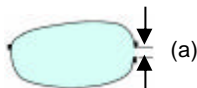
F7




Exit (Return to Edging Mode)

Operation Tips

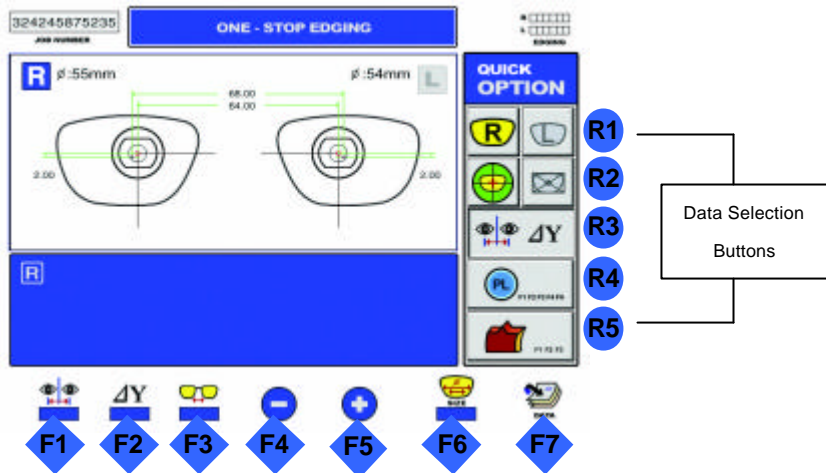
- The Options for Size, Grooving Depth and Polishing can be simultaneously selected in Retouch Mode. Simply set up the required value of adjustment for Size and Grooving Depth.
- In case the operator made an error to activate Rimless Mode instead of Semi-Rimless, the operator can select the Grooving Depth for Semi-Rimless Edging. However, the Grooving Position cannot be selected.
- In case the operator made an error not to activate Polishing, the operator can execute Polishing by way of pressing the Polishing button one more time. The Polishing Button activates alternately by pressing it.
- The recommended Retouch Size will be 1/3 of the length shown as (a).



NOTE

- TAB button is not available in Retouch Mode. Finish the Retouch Mode with  EXIT Button.
- Even though the Retouch Mode is completed with EXIT button, the operator re-activates the Retouch Mode unless he activates the Edging Mode.
- Be sure not to remove the Lens Adapter to activate the Retouch Job.
- No Option Menu other than Right/Left Selection is available in Retouch Mode.

5.4.6 One Stop Edging Mode



Right/Left



Optical Center Mode



Boxing Center Mode



Binocular PD



FPD-based OH



FPD Input



Plastic



Glass



Polycarbonate



Hi-Index



Trivex®



Beveling



Grooving



Flat Edging (Rimless)





Size Adjustment (before Edging)



Select Frame/Pattern Data


Operation Tips


- In case of execute or cancel the One-Stop Edging Mode, press [STOP] button

and "1" (numeric key) in sequence.  + 

- FPD Input Button works alternately whenever being pressed as FPD Input

Button  or Bridge Size Input Button 

- Frame/Pattern Data Selection Button  recalls the recent tracing data from the Frame Reader for the Edging Process.

- The operator can activate Retouch Mode  by pressing Retouch Mode Button after completing One-Stop Edging Process. By pressing EXIT Button, the operator returns to One-Stop Edging Mode. 

! NOTE

- Only Binocular PD and FPD-based OH are available in One-Stop Edging Mode.
- User Selections of Polishing Option are not available in One-Stop Edging Mode.

The followings are automatically applied.

- Beveling : No Polishing
 - Grooving (Semi-Rimless) : with Polishing
 - Flat Edging (Rimless) : with Polishing
-
- During using One-Stop Edging Mode, if you need to use advanced functions, finish the One-Stop Edging Mode and then go into basic edging mode. The applied values and options are still available.

6. User Defined Options

6.1 Configuration of Frame Reader

- How to go into the configuration



- Press these buttons sequentially : Menu >> B
 - Navigate all items using 'FRAME' button.
 - Press the 'B' button to execute the selected item.
 - Press the 'L' or 'R' button to change the value of the selected item.
-
- Purpose of user options
 - ID INFO : Show system ID.
 - Beep : Turn on/off beep sound .
 - EDGER-1 : Enable or disable data transmission through EDGER-1 port.
 - EDGER-2 : Enable or disable data transmission through EDGER-2 port.
 - PC : Allow or disallow PC connection.

6.2 Configuration of Edger

Menu >> User Mode >> User Options >> System Configuration

Language	<input type="button" value="English"/>		User MODE System Information User Options System Configuration Calibration Maintenance
Perform Feeling for Rimless	<input type="radio"/> No	<input checked="" type="radio"/> Yes	
Warning for Small Adapter	<input type="radio"/> No	<input checked="" type="radio"/> Yes	
Barcode Interface	<input checked="" type="radio"/> No	<input type="radio"/> Yes	
Automatic Blocking Interface	<input checked="" type="radio"/> No	<input type="radio"/> Yes	
Water Flushing for PC Edging	<input type="radio"/> Off	<input checked="" type="radio"/> On	
Edging Room Window Watchdog	<input type="button" value="Warning Message"/>		
Minimum Margin for Grooving	0.30		
Job Number Generator	<input checked="" type="radio"/> Auto	Manual	
Instant Job Saving	<input type="radio"/> Off	<input checked="" type="radio"/> On	
Default Mode	<input checked="" type="radio"/> Main Mode	<input type="radio"/> One-Stop Mode	
Baud Rate	Tracer <input type="button" value="115200"/>	Blocker <input type="button" value="115200"/>	
	Barcode <input type="button" value="115200"/>	Host PC <input type="button" value="115200"/>	



- | | |
|--------------------------------|----------------------------------------------------------|
| ? Language | : Choose your own language |
| ? Perform Feeling for Rimless | : Do feeling or not for the rimless lens |
| ? Warning for Small Adapter | : Show the warning message for the small Adapter or not. |
| ? Barcode Interface | : Enable or disable barcode interface |
| ? Automatic Blocking Interface | : Enable or disable automatic blocking |
| ? Water Flushing for PC Edging | : Enable or disable water flushing for PC lens |

- ? Edging Room Window Watchdog : Choose one of the following options for
Edging Room Window opened during
machining
- OFF : No warning
 - Warning Message : Shows the warning message
 - STOP : Stops machining
 - Both : Shows the warning message and stops machining
- ? Minimum Margin for Grooving : Set minimum margin for grooving
- ? Job Number Generator : Generate Job Number automatic or
manual
- ? Default Mode : Set the default edging display
- ? Baud Rate : Set the baud rate for all peripherals.

6.3 Adjusting Edger

There are several kinds of user adjustment for the edger including Size Adjustment, Frame Adjustment, Margin Adjustment, Axis Adjustment, Bevel Adjustment, Groove & Safety Adjustment, Clamp Adjustment.

User Adjustment is done at Menu >> User Mode >> User Options. Press these buttons sequentially



CAUTION

Don't change the factory setting for Margin Adjustment and Clamp Adjustment. Just keep the factory settings.

6.3.1 Size Adjustment

Menu >> User Mode >> User Options >> Size Adjustment

		PL	PC	HI	GL	TR
Finish Size	Bevel	0.25	0.00	0.25	0.25	0.00
	Rimless	0.25	0.00	0.00	0.00	0.00
Polish Size	Bevel	0.00	0.00	0.00		0.00
	Rimless	0.00	0.00	0.00		0.00
Master Size		0.50				
		Metal	Plastic	Optyl	Rimless	
Frame Fitting		0.00	0.00	0.30	0.00	

User MODE

Size Adjustment

Margin Adjustment

Axis Adjustment

Bevel Adjustment

STEP 0.01

Navigation buttons: Up, Down, Right, Left, Home, End, and a button with a minus sign.

- Test Pattern
 - Use the internal Square(40mm x 40mm) and Circle(Ø 50).
- Test Cases
 - Use all kinds of materials such as Plastic, PC, Hi-Index, Glass. Trivex®.
 - Execute the beveled process and the rimless process for all above kinds of material.
 - Check the adjustment amount for roughing and polishing respectively.
- Adjustment
 - Change the value within the tolerance $\pm 0.1\text{mm}$.
 - Remember that the adjusted values are applied in radius.

6.3.2 frame Adjustment

Menu >> User Mode >> User Options >> Size Adjustment

		PL	PC	HI	GL	TRI
Finish Size	Bevel	0.25	0.00	0.25	0.25	0.00
	Rimless	0.25	0.00	0.00	0.00	0.00
Polish Size	Bevel	0.00	0.00	0.00		0.00
	Rimless	0.00	0.00	0.00		0.00

Master Size	0.50			
	Metal	Plastic	Optyl	Rimless
Frame Fitting	0.00	0.00	0.30	0.00

**User
MODE**

Size Adjustment

Margin Adjustment

Axis Adjustment

Bevel Adjustment

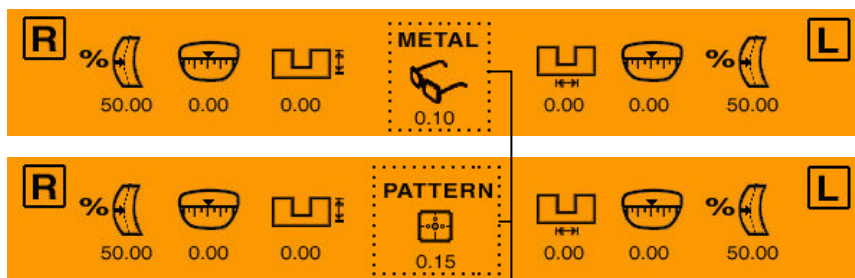
▼

▲ ▼ ▶ STEP 0.01 ◀ + 📄

- ? Trace the frame data with Frame Reader.
- ? Execute the Edging Process with Mid-Index Lens (low diopter lens preferred) and carry out the Fitting with the edged lens.
- ? In case the edged lens is bigger than the frame, adjust the value to '-' (minus). In case the edged lens is smaller than the frame, adjust the value to '+' (plus). (Based on the Lens Diameter)
- ? Using the Master Size Adjustment, the operator can set up the adjustment value for all frame materials simultaneously.
- ? In case the frame tracing is executed after selecting the frame material in the Menu of Frame Reader, the recommended value of fitting adjustment

will be displayed on the screen in the Edging Mode.

? Remember that these adjusted values are applied in diameter.



Adjusted value in the Edging Mode

6.3.3 Axis Adjustment

Menu >> User Mode >> User Option >> Axis Adjustment

	PL	PC	HI	GL	TR0
Normal Axis	-0.00	-0.00	-0.00	-0.00	0.00
Groove Axis	-0.20	-0.20	-0.20		0.00
SFB Axis	Front	0.00	0.00	0.00	0.00
	Rear	0.25	0.00	0.00	0.00
Polish Axis	0.00	0.00	0.00		0.00

User MODE

Size Adjustment

Margin Adjustment

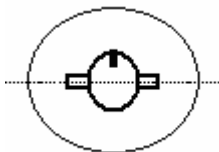
Axis Adjustment

Bevel Adjustment

▼

▲ ▼ ▶ STEP 0.01 ◀ - ▶ + ▶

- Test Pattern



- [After blocking the test lens] Execute the internal Square(40mm X 40mm).

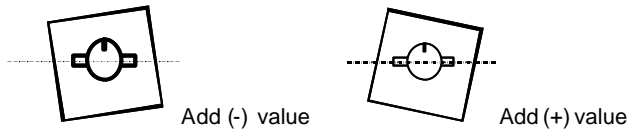
- Test Cases

- Check normal axis, safety bevel axis, groove axis, and polish axis.
- At first, normal axis must be adjusted.

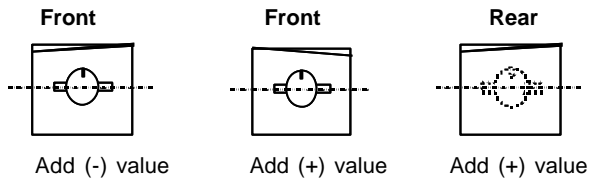
- Adjustment

- The adjustment unit is degree($^{\circ}$).
- Select the item using UP, DOWN and RIGHT arrow buttons.
- Increase or decrease the value using (+) and (-) buttons.
- Add (-) value to correct to the clockwise direction.
- The following picture shows how to adjust incorrect axis value for every edging processes.

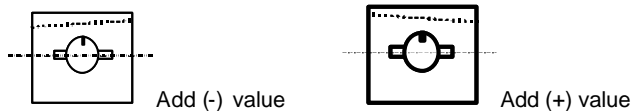
a. Normal axis adjustment



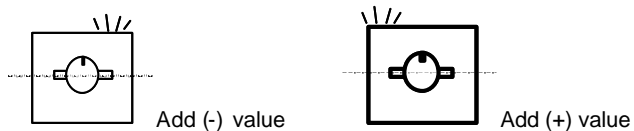
b. Safety beveled axis adjustment



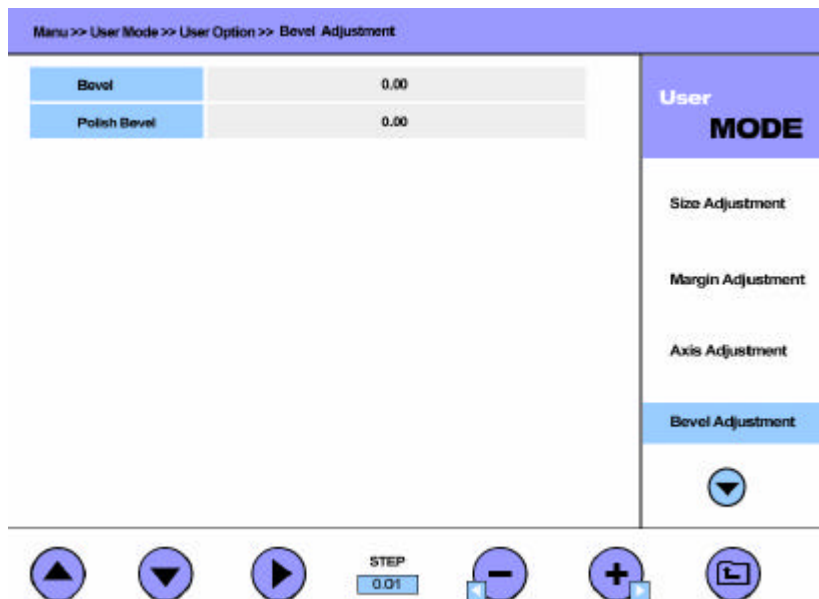
c. grooving axis adjustment



d. Polishing axis adjustment

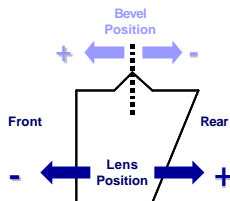


6.3.4 Bevel Adjustment

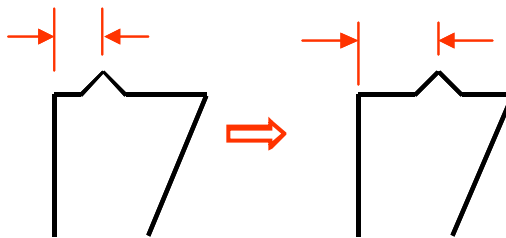


- Test Pattern
 - Execute the Circle pattern (Ø 50) with the beveled position 50%.
- Test Cases
 - Make the circle pattern with polishing and the circle pattern without polishing respectively.
- Adjustment
 - Change the value within the tolerance $\pm 0.1\text{mm}$.
 - Follow the next instructions to adjust the incorrect beveling.

a. The movement of beveled position

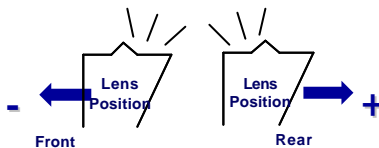


b. The effect of adding (-) value for the beveled position

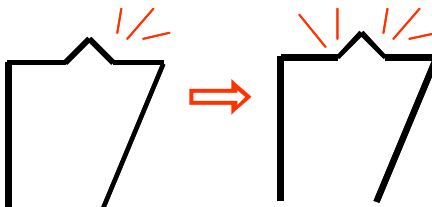


After adding (-) Bevel Position Value

c. The movement of polishing in bevel process



d. The effect of adding (-) for the polished position in bevel process




After adding (-) Polish Bevel Value

6.3.5 Groove Adjustment

Menu >> User Mode >> User Option >> Groove & SFB Adjustment

		Depth		Width		Position	
Groove		0.0		0.6		0.10	
SFB		PL	PC	I-H	GL	TRI	
Bevel	Front	0.16	0.16	0.16	0.16	0.16	
	Rear	-0.50	-0.50	-0.50	-0.50	-0.50	
Rimless	Front	0.30	0.30	0.30	0.30	0.30	
	Rear	-0.50	-0.50	-0.50	-0.50	-0.50	

User MODE






Groove & SFB Adjustment




Clamp Pressure

Layout Default

Edging Default

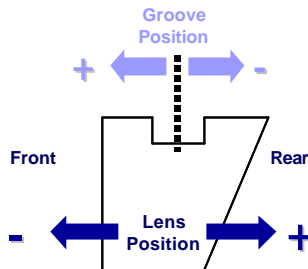




STEP
0.01

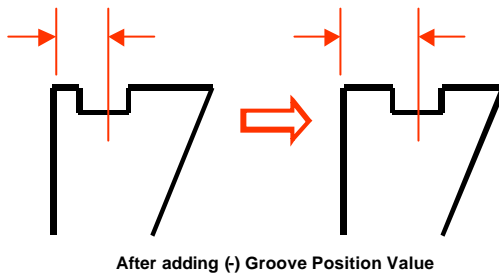




- Test Pattern
 - Execute the Circle pattern (Ø 50) with the grooving position 50%.
- Test Cases
 - Check the grooving depth, width and position.
- Adjustment
 - Change the value within the tolerance $\pm 0.1\text{mm}$.
 - Follow the next instruction to correct the incorrect grooving process.

a. The movement of the grooving position



b. The effect of adding (-) value for the grooving position




6.3.6 Safety Beveling Adjustment

Menu >> User Mode >> User Option >> Groove & SFB Adjustment

		Depth	Width		Position	
Groove		0.0	0.6		0.10	
SFB		PL	PC	HI	GL	TRI
Bevel	Front	0.16	0.16	0.16	0.16	0.16
	Rear	-0.50	-0.50	-0.50	-0.50	-0.50
Rimless	Front	0.30	0.30	0.30	0.30	0.30
	Rear	-0.50	-0.50	-0.50	-0.50	-0.50

User
MODE






Groove & SFB Adjustment




Clamp Pressure

Layout Default

Edging Default

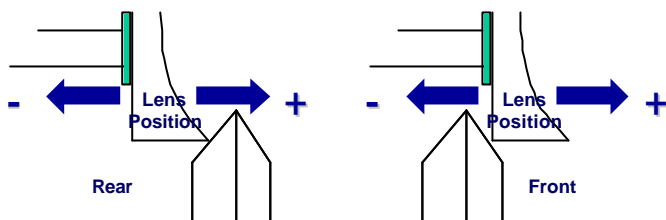
STEP
0.01

- Test Pattern
 - Execute the circle pattern (Ø 50) with the beveled position 50%.
 - Execute the circle pattern (Ø 50) without the beveling.
 - Apply the safety beveling.
- Test Cases
 - Execute above two kinds of processes for each of materials including plastic, PC, Hi-index lens and Trivex®.
 - Apply the front and rear safety beveling to all cases.
- Adjustment
 - Change the value within the tolerance $\pm 0.1\text{mm}$.

- Follow next instructions to correct the incorrect safety beveling.

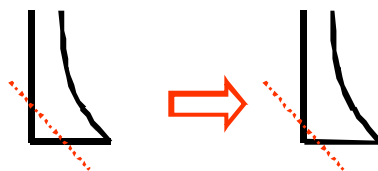
a. The tool movement for correcting



b. The effect after adjusting



After adding (-) in SFB Rear side




After adding (+) in SFB Front side

6.4 Layout Default

Menu >> User Mode >> User Options >> Layout Default

PD Adjustment	0.00			
Mode	<input checked="" type="radio"/> Optical Center		<input type="radio"/> Boxed Center	
Bridge Size	19.0			
FPD	Default	<input type="text" value="68.0"/>	Step	<input type="text" value="0.25"/>
PD	Default	<input type="text" value="64.0"/>	Type	<input type="text" value="Binocular PD"/>
Height	Default	<input type="text" value="2.0"/>	Type	<input type="text" value="Delta Y"/>
Bi-Focal Offset	Horizontal	<input type="text" value="5"/>	Vertical	<input type="text" value="5"/>




**User
MODE**


 Groove & SB Adjustment




 Clamp Pressure

 Layout Default

 Edging Default







STEP



Be sure to ONLY execute User Defined Options described in this manual.
Others, it may cause malfunction of the product.

- ? PD Adjustment : Set initial PD(=Pupil Distance)
- ? Mode : Choose the centering options of followings
- 

• Optical Center
- 

• Boxing Center
- ? Bridge Size : Set initial Bridge Size
- ? FPD : Set initial FPD(=Frame Pupil Distance)

? Height : Choose the initial style for OH(=Optical Height)



- Mixed Height : OH based on the intersection with the frame and the vertical line of the optical center



- Boxed Height : OH based on the lowest point of Frame

ΔY

- Delta Y : OH based on FPD(=Frame Pupil Distance)


? Bi-Focal Offset : Adjustment Value of Blocking Position for Bi-Focal Lens

6.5 Edging Default

Menu >> User Mode >> User Options >> Edging Default

Lens Material	PL	
Process Order	<input checked="" type="radio"/> Right -> Left <input type="radio"/> Left -> Right	
Edging Type	<input type="checkbox"/> Beveling <input type="checkbox"/>	
Polishing	Bevel	<input checked="" type="radio"/> NO <input type="radio"/> YES
	Rimless	<input checked="" type="radio"/> NO <input type="radio"/> YES
Beveling	Curve	<input type="checkbox"/> BC <input type="checkbox"/>
	Position	Percent: 40 Front: 1.60 Rear: 1.30 BC: 5
Grooving	Curve	<input type="checkbox"/> BC <input type="checkbox"/>
	Position	Percent: 30 Front: 1.70 Rear: 1.70 BC: 3
SFB	Amount	Depth: Width: <input type="checkbox"/>
	Bevel	<input checked="" type="radio"/> NO <input type="radio"/> YES
	Rimless	<input checked="" type="radio"/> NO <input type="radio"/> YES
	Mode	<input checked="" type="radio"/> Front & Rear <input type="radio"/> Rear
Width	Front	0.2 Rear Small: 0.3 Rear Large: 0.5
Demo Lens Curve	0	

**User
MODE**






Groove & SB Adj.




Clamp Pressure

Layout Default

Edging Default










STEP

! Be sure to ONLY execute User Defined Options described in this manual. Others, it may cause malfunction of the product.

? Lens Material

-  Plastic
-  Glass
-  PC
-  Hi-Index
-  Trivex®

? Process Order

R → L L → R

? Edging Type

-  Beveling
-  Rimless
-  Grooving

- ? Polish for Bevel : Do polish job or not for after bevel process
- ? Polish for Rimless : Do polish job or not for after rimless process
- ? Beveling Curve : Set initial beveling option

- ? Beveling Position : Set initial bevel position values
- ? Grooving Curve : Set initial grooving option
- ? Grooving Position : Set initial bevel position values
- ? Grooving Amount : Set initial bevel amount for depth and width
- ? SB for Bevel : Do Safety beveling or not after bevel process
- ? SB for Rimless : Do safety beveling or not after rimless process
- ? Safety Bevel Mode : Choose front & rear side or only rear side
- ? Safety Bevel Width : Set initial values for the width of safety beveling for each side and the style.
- ? Groove : Set initial values for the depth and the width of grooving

7. System Maintenance

7.1 Automatic Calibration of Frame Reader



Execute Automatic CALIBRATION for Frame Reader in the followings.

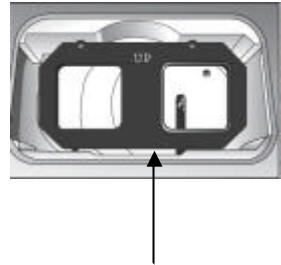
- The traced data seems to show the error in the Size and Axis
- The Frame Reader seems not to work properly

Automatic calibration for frame reader consists of three parts: Stroke, Frame, Pattern. In case of any change happened in the Stylus, do the Stroke calibration first. If it is needed, full calibration order is like this: Stroke -> Frame -> Pattern.

Frame Calibration

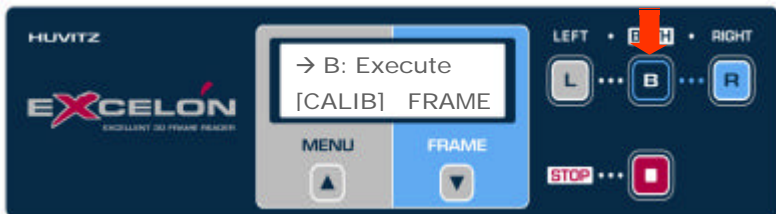
Procedures for frame calibration

- ? Select 'CALIB' menu by MENU button
- ? Select 'FRAME' sub-menu by FRAME button
- ? Press  for execution
- ? Load Standard Frame
- ? Press  to begin



Then follow instructions displayed on the LCD



Standard Frame



**NOTE**

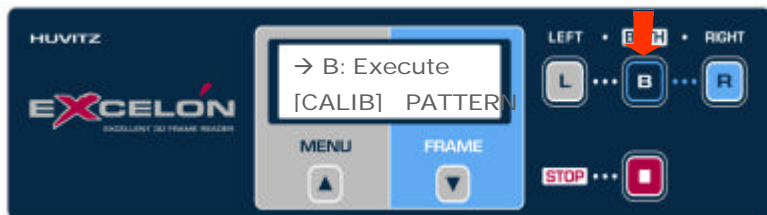
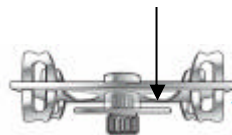
- The result of Automatic Calibration will be automatically memorized.
- Be sure to check the related information before executing the calibration work because you cannot get back the machine to the previous status. .
- During the calibration, STOP button stops and aborts processing job.

Pattern Calibration**Procedures for pattern calibration**

- ? Select 'CALIB' menu by MENU button
- ? Select 'PATTERN' sub-menu by FRAME button
- ? Press  for execution
- ? Load Standard Pattern
- ? Press  to begin



Then follow instructions displayed on the LCD

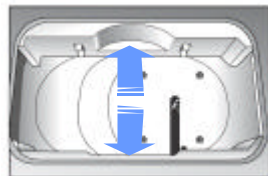
Standard Pattern



Stroke Calibration

Procedures for stroke calibration

- ? Select 'CALIB' menu by MENU button
- ? Select 'STROKE' sub-menu by FRAME button
- ? Press  for execution
- ? Pull the Gripping bars to its maximum open
- ? Press  to begin






Then follow instructions displayed on the LCD

7.2 Automatic Calibration of Edger


Three kinds of calibration can be done with Standard edging jig. Those are Size Calibration, Feeler Calibration and Safety Bevel & Grooving calibration.

Follow the below instruction to go into Calibration display.

- ? Press MENU  button to enter Menu Mode
- ? Press  to select and execute 'User Mode'
- ? Press  to select and execute 'Calibration' menu

Size Calibration


Procedures for frame calibration

- ? Press  to select 'Size Calibration' menu
- ? Replace Block Adapter with Standard JIG
- ? Press F6 to execute or F7 to return to menu
- ? After calibration, press F1 to save or F2 to discard



Feeler Calibration


Procedures for frame calibration

- ? Press  to select 'Feeler Calibration' menu
- ? Replace Block Adapter with Standard JIG
- ? Press F6 to execute or F7 to return to menu
- ? After calibration, press F1 to save or F2 to discard



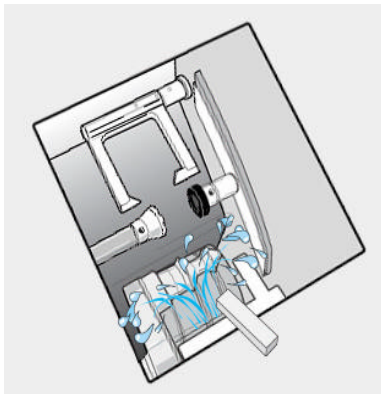
Safety beveling & Grooving Calibration

Procedures for frame calibration


- ? Press  to select 'SFB & Groove' menu
- ? Replace Block Adapter with Standard JIG
- ? Press F6 to execute or F7 to return to menu
- ? After calibration, press F1 to save or F2 to discard



7.3 Wheel Dressing



Menu Execution

 [MENU] (Press and Hold for three seconds)



 [User Mode]



 [Maintenance]



 [Wheel Dressing]



Main

Execute the dressing for the Main Wheel



SB & B

Execute the dressing
for Safety Bevel Wheel



Stop

Stop Wheel Dressing

Wheel Dressing is useful to maintain the wheel performance by way of removing the lens debris stick to the wheel.

- ? Execute Wheel Dressing in the MENU
- ? Select the dressing work for the Wheel (Main/Safety Bevel)
- ? Rubbing the appropriate Dressing Stick to the Wheel softly
(Dressing Sticks are provided as standard accessory in the toolbox)
 - Dressing Stick for Finishing Wheel/ safety Beveling : WA320
 - Dressing Stick for Polishing Wheel : WA1000
 - Dressing Stick for Glass Roughing Wheel : WA320

? Execute  Button to complete the Wheel Dressing

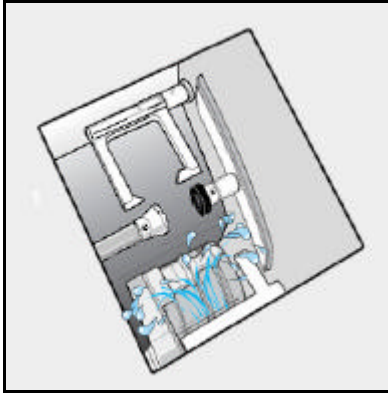
**NOTE**

- It is recommended to carry out Wheel Dressing after 1,500 ~ 2,000 Edging Jobs in order to maintain the Wheel performance. (It may vary depending on the Edging Condition)
- Be sure not to execute Wheel Dressing for Grooving Wheel.


**WARNING**

- Be sure that any part of human body or clothing is not interfered with the edging wheel during the Wheel Dressing. Otherwise, the person may be seriously hurt.

7.4 Edging Room Cleaning



Menu Execution

 [MENU] (Press and Hold for three seconds)



 [User Mode]



 [Maintenance]



 [Edging Room Cleaning]



Execute the Edging
Room Cleaning



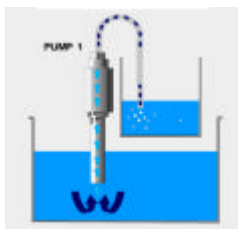
Stop the Edging
Room Cleaning

Supplying the water to the Edging Room in order to remove the lens debris stick to the Edging Room.

NOTE

- It is recommended to carry out Edging Room Cleaning whenever it is necessary or after 1,500 ~ 2,000 Edging Jobs in order to maintain the performance.

7.5 Water Tank Draining



Menu Execution



[Menu] (Press and Hold for three seconds)



[User Mode]



[Maintenance]



[Water Tank Draining]



Execute Pumping



Stop Pumping

- ? Disconnect Water Supply Hose and put it in the small container.
- ? Select Water Tank Draining in the Menu.
- ? Press Pumping Button to transfer the water to the container
- ? After completing the transfer, press Stop Button and connect Water Supply Hose.



NOTE

- It is recommended to replace the water used for a certain period of time to maintain the Edger performance. (It may vary depending on the Edging Condition)

7.6 Wheel Replacement

		Plastic	P C	Hi-Index	Glass	Trivex	Total
Finishing	Bevel	1280	0	410	5	0	1685
	Rimless	120	0	0	0	0	120
Polishing	Bevel	200	0	0	0	0	200
	Rimless	600	0	595	0	0	2159



Reset the number of
Edged Lens

Menu Execution



[MENU](Press and Hold for three seconds)

?



[User Mode]

?



[Maintenance]

?



[Wheel Replacement]

CLEAR button resets the number of edged lens and prevents the warning message of wheel replacement during the operation.

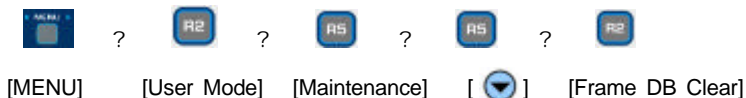


NOTE

- Edged Lens Counter is only used to control the warning message of wheel replacement and has nothing to do with the statistic information of the edged lens.
- The Edger can be started without the warning message of wheel replacement by way of reset with CLEAR Button (recommended to use CLEAR button after the wheel replacement or no display of warning message).

7.7 Frame Data Base Clear

Menu Execution



This function is useful to reset the flash memory of Edger by erasing the memorized frame data and is only available for the product with Bar Code Interface.

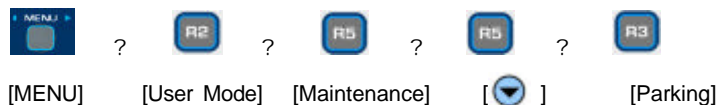


NOTE

- Once the data is erased, it cannot be recovered. Be sure to check the related information before executing the Frame Data Base Clear.

7.8 Parking Mode

Menu Execution



In case of the product movement, the mechanical parts should be tied up before packaging. Parking Mode moves the mechanical parts of Edger to the fixed position.

7.9 Maintenance Tips

? Wheel Replacement

It is recommended to keep the replacement cycle of Wheel in order to maintain the Edging Performance.

- Replacement Cycle : 7,000 ~ 8,000 pieces of Lens edged



Be sure to replace the Finishing Wheel and Polishing Wheel at the same time.

? Regular Maintenance

It is recommended to keep the regular maintenance cycle in order to maintain the Edging Performance. Be sure to carry out the regular maintenance by the service technician of Huvits or the technician authorized by Huvitz.

- Regular Maintenance Cycle : 1,500 ~ 2,000 pieces of Lens edged

? Fuse Replacement

Be sure to check the Fuse Specification for the replacement job.

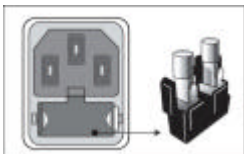
- Edger : 250V 10A . Frame Reader : 250V 3.15A . blocker : 250V 0.5A



NOTE

- Be sure to use the appropriate Fuse. Otherwise it may damage the product or cause the fire.

? Fuse Replacement in Edger and Frame Reader



? Fuse Replacement in Blocker



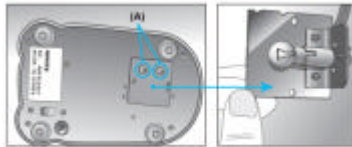
? Blocker Lamp Replacement

In case of Blocker Lamp Replacement, be sure to use the lamp described below.

? Unfasten two screws in (A) disassemble the Lamp Fixing Plate.

? Remove the Lamp.

- Lamp : 6V 8W (Optic Lamp)
- Lamp Life :Approximately 5,000 hours (it may vary depending on the working condition)



! NOTE

- Be sure not to unfasten the screws above (A). Otherwise, it may cause the align problem and malfunction.

Standard Accessory

Operator's Manual	1
Lens Adapter (Large)	3
Lens Adapter (Small)	5
Lens Adapter Holder (Large)	1
Lens Adapter Holder (Small)	1
LEAP-III Tape (500 Pads)	1
Lens Adapter Remover	1
Standard Frame (for Frame Reader Calibration)	1
Standard Pattern (for Frame Reader Calibration)	1
Pattern Holder	1
Dressing Stick (Polishing Wheel)	1
Dressing Stick (Finishing Wheel)	1
Dressing Stick (Glass Roughing Wheel)	1
Feeler Tip (Left)	1
Feeler Tip (Right)	1
Edger Calibration Jig	1
Fuse(10A)	2
Fuse(5A)	2
Fuse(3.15A)	2
Lamp (for Blocker)	1
Wrench Set	1
Carriage Fixing Bracket.....	1
Feeler Fixing Bracket	1
Water Drain Hose	1
Water Supply Hose	1
Water Drain Hose Fixing Clip	1
Power Cable (Edger)	1
Power Cable (Frame Reader)	1
Power Cable (Blocker)	1
9-pin Dsub Serial Cable (Crossed)	1

Option

Water Supply System

Water Tank.....	1
Water Tank Carrier	1
Strainer.....	1
Pump 1.....	1
Pump 2.....	1
Edger Table Appendix B. Specification	1

Specification

Edger

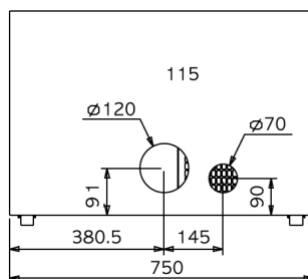
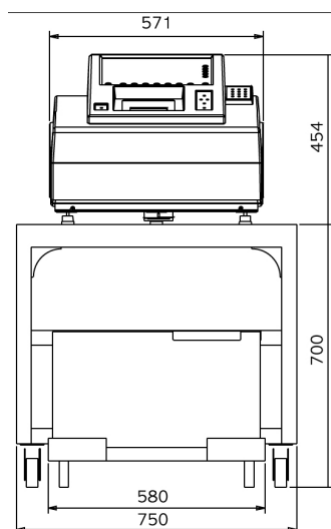
Edging System	Auto
Edging Mode	Beveling
	Flat Edging
	Grooving
	Safety Beveling
	Polishing
Lens Material	Plastic, Glass, Polycarbonate, Hi-Index, Trivex®
Edging Size	Maximum 90mm
	Minimum 18mm
Weight	45 kg
Power Supply	AC 200~240V, 50/60Hz
Power Consumption	1200W(Maximum)
Dimension	570(W) x 540(D) x 460(H) mm

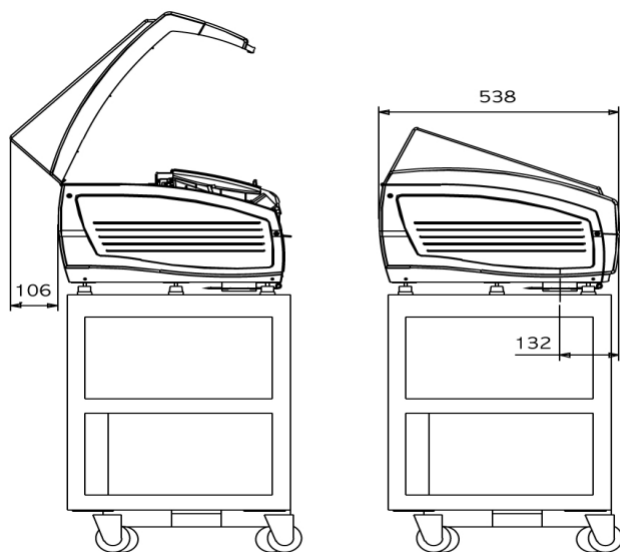
Frame Reader

Dimension	280(W) x 300(D) x 230(H) mm
Tracing System	3D Binocular
Weight	8 kg
Power Supply	AC 100~240V, 50/60Hz
Power Consumption	42W(Maximum)

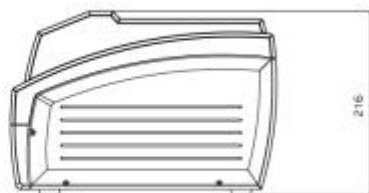
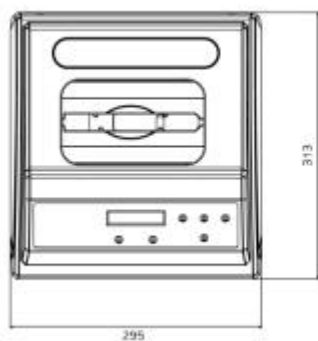
Blocker

Dimension	280(W) x 300(D) x 230(H) mm
Power Supply	AC 100~120/200~240V, 50/60Hz
Power Consumption	15W(Maximum)

Drawings of System**Edger**



Frame Reader



Blocker

